

①

11/08/2018

Lee / MCE setup

Cell # / File # / Pressure (kPa) / Temperature (K) / Etc. / Laser power on / Left / Right

200-6

200-1

35

melt

120 0.2

-2

pressure  
check

-3

50

pressure  
check

-4

54

pressure  
check

-5

1600-1700K

during  
heat

-6

quench

-7

mirror  
angle change

-8

1600-1700K

move  
spot/heating

-9

quench

-10

pressure  
check

-11

pressure  
check

-12

12.0

-13

heating

quench

Witnessed &amp; Understood by me

-14

Date

Invented by:

Date

Recorded by:

(Hor: -1.370, Ver: -0.27, Hor2: -0.377)

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②

Project No.

Book No.

298

133

Measuring T.

-15

heating

bad  
data

-16

-17

-18

phase  
check

bad

305

-19

bad.

150-3

150-~~100~~1

50

pressure  
check

305

-2

60

pressure  
check

"

-3

70

pressure  
check

"

-4

80

pressure  
check

"

-5

—

before  
heating

305

-6

1100-1900

heating

1805

-7

heating

605

-8

heating

1805

-9

~~heating~~ heating~~1805~~

-10

Quench

1805

Witnessed &amp; Understood by me,

Date

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File #

P

T

Time

Lat

Right

Ets

✓	-11	2700-3200K	1805	10.0	11.2	Solidus?	Quench
✓	-12		1805				
	-13		1805	10.2	11.2	Solidus?	Quench
	-14		1805				
	-15		1805	8.4	20.9	Solidus?	Quench
	-16	>3000K	1805				
	-17		305			check	
✓	-18	1600-1900K	305	13.2	14.1	phase check	
✓	-19	>2200K	305	11.6	11.8	"	
✓	-20	2800-3200K	1805	13.9	13.1	Subsolidus	Quench
✓	-21						
	-22		1805			Subsolidus	
	-23	>2000K	1805	14.3	13.9	Solidus?	
	-24		1805			Quench	

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-25 91 GPa 30 s pressure check  
-26 30 s phase check  
-27 30 s phase check

-28 180 s bad  
-29 180 s heating, subsolidus?  
-30 180 s quench

-31 180 s solidus?  
-32 180 s quench

~~Do / -0 /~~

-33

3400-3600 K 180 s  
(?)

above  
solidus?  
quench

-34

180 s

bad → 120-1

~~35~~



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120-1	-01	81 GPa	30s	pressure check,	
	-02	94 GPa	30s	P check	
	-03	106 GPa	30s	P check	
	-04	117 GPa	30s	P check	
	-05	121 GPa	30s	P check	
	-06	128 GPa	30s	P check	(300K)...
	-07	125 GPa	30s	P check	
	-08	130 GPa	30s	P check	
	-09	127 GPa / 2400K	30s	Phase check	PPV, PV
	-10		30s	"	
	-11		30s	"	
	-12		30s	300K	
	-13	127 GPa / 2800K - 3100K	180s	Subsolidus	
	-14			quench	



(6)

1805

1805

Subsolidus

quench

ppv, pv

bad

-17

~~18~~

-18

128 GPa

305

P check

-19

130 GPa

305

P checks

-20

134 GPa

305

P check

-21

139 GPa

305

position  
phase check

-22

1805

heating

-23

1805

quench

-24

1805

heating (high -T)

-25

1805

quench

-26

~~1805~~ 1805

~~phase check~~ high T (bad)

phase check

305

-27

Witnessed & Understood by me, \_\_\_\_\_

Date \_\_\_\_\_

Invented by: \_\_\_\_\_

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-28

180s

solidus }

-29

180s

quench

-30

30s

phase check

-31

30s

phase check

-32

30s

quench

-33

180s

heating

-34

180s

quench

-35

136Pa

120-2

(20-2

-01

30s

pressure  
check

??

-02

-03

-04

-05

-06 88GPa

30s

P check

-07 98GPa

30s

P check

-08

105GPa

30s

P check

-09

105GPa

Invented by:  
Recorded by:

P check

Date

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TITLE

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~~1000~~ -10 1156Pa 305

P. check

-11 305 phase check

-12 305

2600-2900K

305

-13

"

transformation

-14

305

"

-15

1805

heating

-16

1805

quench

-17

1805

heating

-18

1805

quench

-19

1805

heating, subcooling?

-20

1805

quench

-21

1805

heating

-22

1805

re-heating

-23

1805

quench

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Date

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Recorded by:

Date



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-24

30s

phase check

-25

30s

phase check, high T

-26

180s

Solidus?

-27

180s

quench

-28

180s

bad (X)

-29

1186Pa.

30s

pressure  
check

-30

1236Pa.

30s

P-check

-31

?

-32

180s

heating

-33

180s

quench

-34

180s

above Solidus

-35

180s

~~quench~~ || (re-heat)

-36

180s

quench

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150-5

-1

~~50 GPa~~  
43 GPa

30 s

pressure  
check

-2

50 GPa

30 s

pressure  
check

-3

30 s

phase check

-4

30 s

phase check

-5

1000-2000 K

30 s

phase check

-6

52 GPa/2000 K

180 s

low heat  
quench

-7

180 s

↑ Eutectic

-8

180 s

Solidus?

↓ pyrolytic

-9

180 s

quench

180 s

Subsolidus !!

-10

180 s

quench

-11

(50 GPa)

Witnessed &amp; Understood by me,

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